AMENDMENTS TO THE CLAIMS:

The following listing of claims should be entered to replace all prior listings of claims in the application. In accordance with Rule 121, the status of each claim is indicated parenthetically. As can be seen, in this listing, claims 1, 22 and 28 have been amended, claims 44 and 45 have been canceled and claims 46 and 47 have been newly added. Thus, claims 1-43 and 46-47 remain in the application.

LISTING OF CLAIMS:

1.   (Currently amended): Method for controlling breeding of animals of a herd comprising

selecting by means of a control unit a subgroup of animals from the herd and determining a weight range from which the weight of each of the selected animals should not deviate at a selected future date,

the method further comprising for each animal of the selected subgroup the repeated series of steps of

monitoring the weight of each individual animal by ~~regularly, automatically~~ regular, automatic detection of the weight by means of weighing means controlled by means of a control unit to which the weighing means ~~communicate~~ communicates an output signal being significant for the detected weight, the detection being accompanied by an automatic identification of the individual animal by means of identification means controlled by means of the control unit to which an output significant of the identity of the animal is communicated from the identification means,

adding said output from the weighing means into a record pertaining to the individual animal, the record being selected by the control unit from a plurality of records comprised within a data storage means of said control unit by use of the output from the identification means, and storing of said record in the data storage means by means of said control unit,

computing by means of the control unit a feed ration for each individual animal based on data comprised within the record pertaining to said animal, on the selected weight range, and on the selected date,

controlling an automatic feeding unit by means of the control unit, wherein each individual animal is automatically identified by means of identification means controlled by means of the control unit and the computed feed ration for the individual animal is dispersed to the animal by means of feed dispersing means controlled by means of the control unit, and

adding data concerning the feeding of the individual animal to the record pertaining to said animal.

2.   (Original): Method according to claim 1, and further comprising the steps of

receiving by means of the control unit a separation order comprising data relating to the number of animals to be separated, to a weight range from which the weight of each of the selected animals should not deviate upon separation, and to a future date of separation,

performing said selection of a subgroup in accordance with the received separation order, and

performing by means of separation means controlled by the control unit a separation from the remaining herd of the selected subgroup of animals on said date of separation.

3.   (Original): Method according to claim 1 comprising for each animal the repeated series of steps of

automatic identification of an individual animal by means of identification means controlled by means of a control unit to which an output significant of the identity of the animal is communicated from the identification means,

dispersing feed to the identified animal by means of feed dispersing means of an automatic feeding unit controlled by means of the control unit, and

adding data concerning the feeding of the identified animal to a record pertaining to said animal and storing said record on data storage means associated with the control unit, the data concerning the feeding of the identified animal comprises data suitable for unique identification of the batch/batches of feed from which the feed dispersed to the animal is taken.

4.   (Original): Method according to claim 3 comprising the steps of

identifying from said records which batches a given animal have consumed feed from,

retrieving from data storage means information about the constituents of each of the

batches of feed from which a given animal have consumed feed from, and

producing an output accordingly.

5.   (Original): Method according to claim 3 comprising the steps of

identifying from a unique identification of a batch of feed the animals of the herd which

have consumed feed from said batch, and producing an output accordingly.

6.   (Original): Method according to any of claim 3, wherein the data suitable for unique

identification of the batch/batches of feed from which the feed dispersed to the animal is taken

are being added to a record pertaining to the identified animal for substantially all food being fed

to the animal during a period corresponding substantially to the lifetime of the animal and

substantially all of the data added to the record pertaining to each of the animals are kept in the

record at least during said period.

7.   (Original): Method according to claim 6, wherein each record pertaining to an individual

animal of the herd comprises data relating to the identity of the mother of the individual animal,

said data being suitable for enabling unique identification of the batch/batches of feed from

which the feed dispersed to the mother during the pregnancy period to be retrieved.

8.   (Original): Method according to any of claim 3, further comprising the steps of

determining by means of product identification means a unique animal identification of

products derived from animals of the herd, and

searching and retrieving from data storage means a record pertaining to the animal from

which the product was derived in accordance with the determined unique animal identification,

the record comprising data suitable for unique identification of batches of feed from which feed

dispersed to the animal have been taken.

9.   (Original): Method according to claim 3, further comprising the steps of

determining unique animal identification data by means of analysing the DNA of a sample taken from an animal of the herd or from a product derived from an animal from the herd, and

searching and retrieving from data storage means a record pertaining to the animal in accordance with the determined unique animal identification data, the record comprising data suitable for unique identification of batches of feed from which feed dispersed to the animal have been taken.

10.   (Original): Method according to claim 1, wherein said data concerning the feeding of the individual animal comprises data concerning the time at which the animal is fed.

11.   (Original): Method according to claim 1, comprising the steps of

monitoring characteristics of each individual animal by regularly, automatically detection of said characteristics by means of detection means controlled by means of the control unit to which the detection means communicate an output signal being significant for the detected characteristics, the detection being accompanied by an automatic identification of the individual animal by means of identification means controlled by means of the control unit to which an output significant of the identity of the animal is communicated from the identification means, said characteristics comprising at least the weight of the animal, and

adding said output from the detection means into the record pertaining to the individual animal and storing of said record in the data storage means by means of the control unit.

12.   (Original): Method according to claim 11, wherein the step of monitoring characteristics of each identified animal comprises the monitoring of at least one of the following characteristics:

a) a temperature of the animal,

b) a thickness of the fat layer on the back of the animal, and

c) an image representing at least a part of the body of the animal, the at least one characteristics being detected by suitable detection means controlled by means of the control unit to which the detection means communicates an output signal being significant for the detected characteristics, the method further comprising the step of adding said output from the detection

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- means into the record pertaining to the identified animal.

13.   (Original): Method according to claim 11, wherein the step of monitoring characteristics of each identified animal comprises the monitoring of at least one of the following characteristics relating to the stress level of the animal:

      d) the respiration rate of the animal,

      e) the heart beat rate of the animal,

      f) the blood pressure of the animal, and

      g) an image of an eye of the animal,

the at least one characteristics being detected by suitable detection means controlled by means of the control unit to which the detection means communicates an output signal being significant for the detected characteristics, the method further comprising the step of comparison of the output signal with a standard value of said output comprised within the storage means by means of the control unit and the step of adding the outcome of said comparison into the record pertaining to the identified animal.

14.   (Original): Method according to claim 13, wherein said standard value of said output for each of the animals is comprised within the record pertaining to the animal.

15.   (Original): Method according to claim 12, wherein a temperature of each animal is monitored, the method further comprising the steps of

      determining whether the detected temperature deviates from a predetermined reference temperature range by means of the control unit, and

      separating the animal by means of a separation unit controlled by means of the control unit in case of deviation.

16.   (Original): Method according to claim 1, wherein the computed feed ration comprises a mixture of at least two types of feed and the feed dispersing means disperses said mixture.

17.   (Original): Method according to claim 1, wherein the feeding unit comprises detection means for detecting a possible amount of feed that was not consumed by the animal to which it

was dispersed and for communicating data being significant of said amount to the control unit, said data being added to the record pertaining to said animal.

18.   (Original): Method according to claim 1 and further comprising the step of

on a regular basis computing the E value, being the weight unit growth per consumed weight unit of feed, for each animal by means of the control unit using data comprised within the record pertaining to the animal.

19.   (Original): Method according to claim 18 and further comprising the steps of

determining for each animal whether the computed E value deviates from a predetermined set of E value ranges by means of the control unit, and

separating the animal by means of a separation unit controlled by means of the control unit in case of deviation.

20.   (Original): Method according to claim 17 and further comprising the steps of

determining for each animal whether the consumed amount of feed deviates from a predetermined set of feed consumption ranges by means of the control unit using data comprised within the record pertaining to the animal, and

separating the animal by means of a separation unit controlled by means of the control unit in case of deviation.

21.   (Original): Method according to claim 1, wherein the feed ration for each animal is adjusted by means of the control unit according to the temperature and optionally to the wind speed the animals are subjected to.

22.   (Currently amended): Method according to claim 1 and further comprising the steps of wherein said step of selecting by means of the control unit a subgroup of the herd of animals from the heard comprises the step of selecting a subgroup , said subgroup comprising at least one animal, by means of the control unit, the selection being based on data comprised within the records of each animal and on a set of selection data comprised in the data storage means, and

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controlling an automatic separation unit by means of the control unit, wherein each animal belonging to said subgroup is automatically identified by means of identification means controlled by means of the control unit and is separated to a separation enclosure.

23.   (Original): Method according to claim 1 and further comprising the step of issuing a warning information requesting external interaction by means of the control unit in case at least one condition of a list of conditions is fulfilled, the list of conditions comprising at least the following conditions:

a) at least one of the animals has not entered a feeding unit within a predetermined time period, and

b) the power supply to a breeding system controlled by the control unit is interrupted.

24.   (Original): Method according to claim 23, wherein the feeding unit comprises feed storage means and monitoring means for monitoring the content of the storage means and communicating to the control unit accordingly, the list of conditions further comprising the condition of:

c) the remaining supply of feed in the feed storage means is below a predetermined threshold value.

25.   (Original): Method according to claim 23, wherein the list of conditions further comprises at least one of the following conditions:

d) the pressure in the supply of compressed air to the breeding system is below a predetermined threshold value,

e) the pressure in the supply of drinking water to the breeding system is below a predetermined threshold value, and

f) a malfunction of one of the elements of the breeding system being controlled by means of the control unit is detected.

26.   (Original): Method according to claim 23, wherein the list of conditions further comprises the condition of:

g) at least one of the animals has not approached a drinking water bowl within a predetermined time period.

27.   (Original): Method according to claim 1, wherein the control of the feeding unit further comprises the step of controlling medicine dispersing means of the feeding unit in accordance with medicine dispersing data stored within the record pertaining to the identified animal in the feeding unit so that the animal is being provided with a predetermined ration of medicine, and wherein the data concerning the dispersing of medicine is added to said record.

28.   (Currently amended): Method according to claim 1, wherein said step of selecting a subgroup comprises the step of selecting a subgroup is selected to be in accordance with a separation order communicated to the control unit, the separation order comprising data relating to the number of animals to be separated and to at least one quality to be fulfilled by the selected animals, the at least one quality being selected from a list of qualities comprising the following quality:

a) a weight range from which the weight of each of the selected animals do not deviate.

29.   (Original): Method according to claim 28, wherein the list of qualities further comprises the following quality:

b) a predetermined time period in which medicine has not been dispersed to any of the selected animals.

30.   (Original): Method according to claim 28, wherein a thickness of the fat layer on the back of the animal is monitored, the list of qualities further comprises the following quality:

c) a thickness range from which the thickness of the fat layer on the back of the selected animals should not deviate.

31.   (Original): Method according to claim 28, wherein the list of qualities further comprises the following quality:

d) a set of E value ranges from which the set of computed E values of the selected animals should not deviate.

32.   (Original): Method according to claim 10, wherein a separation of animals is performed in relation to the feeding, the separation order further comprises data relating to the time at which the separation following the selection is to be accomplished, the separation of animals being performed with consideration to data relating to the times at which the animal is fed comprised in the record of each animal.

33.   (Original): Method according to claim 1, wherein animals that are separated for slaughtering are identified and monitored through the procedure of separation, transport to the place of slaughtering and the slaughtering process itself so that each of the individual animals are monitored a plurality of times during said procedure and data resulting from said monitoring are added to the records pertaining to the respective animals.

34.   (Original): Method according to claim 1, wherein each of the records further comprises data relating to the identity of the parents of the animal and to the date of birth.

35.   (Original): Method according to claim 1, wherein the breeding arrangement controlled by use of the method comprises a mud-hole arranged accessible for the animals, the mud-hole having such dimensions that it may contain at least one of said animals and having a design so that said animals are able to enter and leave the mudhole, the mud-hole comprising detection means for detecting the relative content of excretions in a liquid contained within the mud-hole and communicating an output accordingly to the control unit, the control unit comparing the output with a predetermined range stored within the storage means and issuing a warning in case the output deviates from said range.

36.   (Original): Method according to claim 1, wherein the control unit is at least temporarily connected to a data communication network via which it is able to communicate with at least one remote system.

37.   (Original): Method according to claim 36, wherein the remote system is a surveillance system from which the operation of the control unit may be remotely monitored and at least partially controlled.

38.   (Original): Method according to claim 23, wherein the warning information is issued to a remote system by means of the data communication network.

39.   (Original): Method according to claim 1, further comprising for each animal the repeated series of steps of

automatic identification of an individual animal approaching a drinking water bowl by means of identification means of the drinking bowl controlled by means of the control unit to which an output significant of the identity of the animal is communicated from the identification means,

monitoring of the amount of water consumed by said animal from the drinking water bowl by means of detection means and communicating an output accordingly to the control unit, and

adding said data to the record pertaining to said animal, the animals of the herd being supplied with drinking water from one or more drinking water bowls controlled in the above way so that all consumption of drinking water of each of the animals is monitored and data concerning said consumption are added to the record of each animal.

40.   (Original): Method according to claim 39 and further comprising the steps of

determining for each animal whether the consumed amount of water deviates from a predetermined set of water consumption ranges by means of the control unit using data comprised within the record pertaining to the animal, and

separating the animal by means of the separation unit in case of deviation.

41.   (Original): Method according to claim 40, wherein the step of separation of the animal is accompanied by the issuance of warning information by means of the control unit.

42.   (Original): Method according to claim 1 comprising for each animal the repeated series of steps of

detecting by means of electronic image recording means an electronic image being significant of a possible amount of feed that was not consumed by the animal to which it was dispersed and processing said image by means of data processing means to determine said possible amount, and

adding data concerning the feeding of the identified animal, including said determined possible amount, to a record pertaining to said animal and storing said record on data storage means associated with the control unit.

43.   (Original): Method for remote surveillance of a plurality of breeding systems each for automatic breeding of animals of a separate herd by means of a central surveillance computer system in accordance with the method of claim 1, the method comprises for each of the breeding systems the steps of

performing a continuous monitoring of the operation of at least parts of the 5 breeding system by means of the control unit, and

at least temporarily establishing a data communication connection between the control unit and the central surveillance computer system via a data communication network,
the method further comprising the steps of comparing the collected data relating to the animals of each of the herds and to the monitoring of the operation of each of the plurality of breeding systems with a set of standard data defining an envelope of normal operation and issuing by means of the central surveillance computer a warning message comprising a request for human interaction with a specified one of the plurality of breeding systems.

44 - 45. (Canceled)

46.   (New): A computer system for controlling breeding of animals of a herd comprising:
        at least one computer having one or more computer programs stored within a data storage means associated therewith;
        means for selecting a subgroup of animals from the herd;

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a weighing means for determining a weight range from which the weight of each of the selected animals should not deviate at a selected future date;

means for monitoring the weight of each individual animal by regular, automatic detection of the weight;

means for communicating an output signal from the weighing means being significant for the detected weight to a control unit;

an identification means for automatically identifying the individual animal;

means for communicating an output significant of the identity of the animal from the identification means to the control unit;

means for adding the output from the weighing means into a record pertaining to the individual animal, the record being selected from a plurality of records comprised within said data storage means by use of the output from the identification means,

means for storing said record in the data storage;

means for computing a feed ration for each individual animal based on data comprised within the record pertaining to said animal, on the selected weight range, and on the selected date;

means for controlling an automatic feeding unit, wherein each individual animal is automatically identified by means of identification means;

a feed dispersing means for dispersing the computed feed ration for the individual animal; and

means for adding data concerning the feeding of the individual animal to the record pertaining to said animal.

47.   (New): A computer program for controlling breeding of animals of a herd comprising:

means for selecting a subgroup of animals from the herd;

a weighing means for determining a weight range from which the weight of each of the selected animals should not deviate at a selected future date;

means for monitoring the weight of each individual animal by regular, automatic detection of the weight;

means for communicating an output signal from the weighing means being significant for the detected weight to a control unit;

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an identification means for automatically identifying the individual animal;

means for communicating an output significant of the identity of the animal from the identification means to the control unit;

means for adding the output from the weighing means into a record pertaining to the individual animal, the record being selected from a plurality of records comprised within a data storage means of said control unit by use of the output from the identification means,

means for storing said record in the data storage;

means for computing a feed ration for each individual animal based on data comprised within the record pertaining to said animal, on the selected weight range, and on the selected date;

means for controlling an automatic feeding unit, wherein each individual animal is automatically identified by the identification means;

a feed dispersing means for dispersing the computed feed ration for the individual animal; and

means for adding data concerning the feeding of the individual animal to the record pertaining to said animal.